

**EFFECTIVENESS OF LAUGHTER THERAPY ON STRESS  
AMONG SENIOR CITIZENS IN SELECTED COMMUNITY  
SETTING AT KANCHIPURAM DISTRICT**

**By**

**Ms. T. VIJAYA SARASWATHY**



**A Dissertation submitted to  
THE TAMILNADU Dr. M. G. R MEDICAL UNIVERSITY,  
CHENNAI.**

**IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE  
DEGREE OF MASTER OF SCIENCE IN NURSING**

**APRIL 2012**

**CERTIFIED THAT THIS IS A BONAFIDE WORK OF  
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MELMARUVATHUR.**

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# **CHAPTER – I**

## **INTRODUCTION**

Aging is a natural process. Old age is an inevitable one. Old age is a crucial phase where physiological, psychological and sociocultural changes make elderly to develop stress. The concept of 'old' has changed drastically over the years. Our prehistoric ancestors probably had a life span of 40 years, with the average individual living around 18 years.

Old age is viewed both as a stage in life span of an individual and also a segment of a population in society. Public considers people who are 50 – 75 years of age as old. Developmental psychologist consider 60 years as the demarking line between middle and old age, whereas social researchers set the boundary of old age as 65.

Gerontology is the study of aging has becoming a field of specialization. Gerontologist divided the aged into 3 groups the young old (60 – 70 years), old old (75-85 years), and very old(85 and above) .

Old Age has now become a prevalent social problem in our society. In our modern society, where money is the scale of

everything, the old age people are measured as an economic liability and a social burden. In addition, old age is inevitable and thus of concern to each of us. It is strange that no one wants to grow old but everyone wants to live long. But old age is observed as an ineluctable, undesirable, problem-ridden stage of life that we all are compelled to live, marking time until our final exit from life itself. Old age is a period of multiple sickness and general disability. This unbonding situation may lead to stress among old age.

Exposure to stress among old age can also contribute to behaviours such as smoking, over-consumption of alcohol, retirement from job, family situation, less-healthy eating habits, etc.

In India by the year 2010, 24.9% of old age females reported that most days were quite a bit or extremely stressful, compared with 22.0% of males.

In Tamil Nadu daily mental illness rates were highest in the old age people above 60 years and with that about 30% were reporting stress.

Laughter therapy is defined as a new kind of therapy that involves giggling, chuckling and a great sense of humor. Humor

therapy refers to a form of therapy which encourages the use of natural physiological process of laughter therapy without painful emotion of anger, fear and boredom.

Neurophysiology indicates that laughter is linked with the activation of the ventro-medial prefrontal cortex that produces endorphins. Scientists have shown that parts of the limbic system are involved in laughter. This system is involved in emotions and helps us with functions necessary for humans' survival. The structures in the limbic system that are involved in laughter are the hippocampus and the amygdala.

According to **American Medical Association** the neurological causes of laughter are "Although there is no known 'laugh center' in the brain, its neural mechanism has been the subject of much, albeit inconclusive, speculation. It is evident that its expression depends on neural paths arising in close association with the telencephalic and diencephalic centers concerned with respiration and considered the mechanism to be in the region of the thalamus, hypothalamus, sub thalamus and tegmentum. So while purely emotional responses such as laughter are mediated by subcortical

structures, especially the hypothalamus, and are stereotyped, the cerebral cortex can modulate or suppress them.

For many years medical professionals have recognized that those patients who maintained a positive mental attitude and shared laughter responded better to treatment. Psychological responses to laughter include increased respiration, circulation, hormonal and digestive enzyme secretion, and a leveling of blood pressure. Many scientists reported that general sense of euphoria after vigorous laughter.

## **NEED FOR THE STUDY**

According to **World health organization (2010)** globally rate of growth of aging population is exceeded in general population and this would increase 1.2 billion people over 60 years. A quarter century after number of people over 60s will be doubled. 80% of older persons will live in developing countries and this would increase to 1,594 million by the year 2050. WHO also projected that elderly population in developed nation will close from 12% to 19% by 2026 and then developing countries will account for  $\frac{3}{4}$  of the world's elderly population.

According to **National Health Statistics (2009)** there are currently 550 million elderly aged 60 and over in the world and of these 335 million has been living in developing countries, for the last 50 years. The rate of accelerated death in developing countries has visibility decreased and life expectancy at birth has increased by 62 years. In the year 2020 life expectancy at birth will be predicted to reach 70. In India about 7% of elderly population is over the age of 60 and it is expected to increase by 20% by the year 2030. The state of well being varies from 22.1% to 52.1% in the elderly. The prevalence rate of mental morbidity is 89/1000 elderly with geriatric stress accounting for 60/1000. Psychiatric disorder is seldom an isolated event and is associated with a high degree of physical co-morbidity.

The growing population is one of the most significant characteristics of 20<sup>th</sup> century and first quarter of 21<sup>st</sup> century. Along with world population, Indian elderly are also “ageing in old age”. Aging is a lifelong activity from birth we grow older through infancy to childhood to adolescence to adulthood and onwards. The term old is associated with alteration in individuals biological, psychological,

health capabilities and changes in social role, people aged 60 years and over are also considered as persons in third age.

According to **World health organization, (2009)** aging has become gender issue because due demographic changes, there will be 604 million older women in 2025. 70% of these will be in developing countries and 70% will be in rural poverty, widowhood 60, 65, and 70 years. There are 974 women/1000 men in India. 10% of older women are chronically ill, 80% are totally economically dependent, thus women are more prone to be stress than men.

Laughter Yoga is especially beneficial for older people. Seniors are always in need of human contact. While most of them are surrounded by likeminded peers, they still miss the bonding of a family. They need someone close with whom they can share their emotions. Laughter Yoga sessions have the power to reach beyond the healing of laughter. The effective network of caring-sharing relationships is the key to a happy and healthy life. Relationships with people become very strong and the feeling of loneliness dissipates. Seniors enjoy the daily meetings as it generates a sense of belonging.

Laughter therapy decreases stress hormones that constrict blood vessels and suppress immune activity and reduces at least four of neuroendocrine hormones associated with stress response. Laughter helps to relieve the stress because while laugh adrenaline level goes down and also triggers the release of endorphins, the body's natural painkillers and produce a general sense of well being. Laughter therapy is found to lower blood pressure, reduce stress hormones, increase muscle flexion and boost immunes.

Therefore the incidence rate gives us a clear picture about the problems of senior citizen. The investigator has personally witnessed the senior citizen suffering from various psychological disturbances. Hence the investigator was interested in administering laughter therapy and to find out the effectiveness to reduce stress among senior citizen and to promote the health status of senior citizens.

## **STATEMENT OF THE PROBLEM**

**EFFECTIVENESS OF LAUGHTER THERAPY ON STRESS AMONG SENIOR CITIZENS IN SELECTED COMMUNITY SETTING, KANCHIPURAM DISTRICT.**



## OBJECTIVES

- ❖ to assess the level of stress among senior citizens.
- ❖ to assess the effectiveness of laughter therapy on stress among senior citizens.
- ❖ to find out the association between the effectiveness of laughter therapy on stress among senior citizens with selected demographic variables.

## OPERATIONAL DEFINITIONS

### Effectiveness

It refers to significant reduction in the level of stress of senior citizens after practicing laughter therapy technique as measured by the improvement in post test score by using "**Modified Great lakes naturopathic centre stress assessment rating scale**".

### Laughter therapy

Laughter therapy is a form of therapy which encourages the use of natural physiological process of laughter therapy to reduce the adrenaline level for reduction of stress. Demonstration of the laughter therapy was done by the investigator to the senior citizens with stress. The therapy has 25 steps and each session was for a period of 30 minutes per day for 3 weeks.

## **Senior citizens**

It refers to men and women or both in the age of 60 years and above having stress living in selected community settings.

## **Stress**

Stress refers to failure of the senior citizen living in keezhmaruvathur village, kanchipuram district to cope up with the family members and not able to respond appropriately to emotional or physical threats of daily living as assessed by using “**Modified Great lake Naturopathic centre stress assessment rating scale**”.

## **HYPOTHESIS**

- ❖ There will be a significant difference between the pre test and post test level of stress among the senior citizens.
- ❖ There will be a significant association between the effectiveness of laughter therapy with selected demographic variables.

## **LIMITATIONS**

- ❖ The study was limited to 30 senior citizens with stress.
- ❖ The duration of the study was 6 weeks.

- ❖ The languages known to the population is Tamil or English.
- ❖ The findings of the study cannot be generalized.
- ❖ The study was limited to keezhmaruvathur village, kanchipuram district.

## **CONCEPTUAL FRAME WORK**

Conceptual framework is a network of inter related changes that provide a structure for organizing and describing the phenomenon of interest. Research studies based on the theoretical or conceptual frame work that facilitates visualizing the problem and places the variable in a logical context.

This investigator adapted Imogene King's Goal Attainment theory (1981) based on personal and interpersonal systems including perception, action, interaction and transaction. The investigator adapted this basic theory for conceptual framework which is aimed to find out the effectiveness of laughter therapy. This involves interaction between the researcher and senior citizens. There are 4 major concepts.

### **PERCEPTION**

It refers to people's representation of reality. It is not observable but it can be inferred. Hence the investigator perception is to assess the demographic variables and level of stress among senior citizens in selected community setting, kanchipuram district.

The tool used to collect information from the samples is demographic variables such as age, sex, religion, educational status, Occupation, marital status, type of family, monthly income, source of income, and number of children. The data had been collected by interviewing the senior citizens and based upon their answers a tick mark was put for the appropriate response of each item.

Selected demographic variables was used to assess the level of stress among senior citizens like presence of any medical illness, history of smoking, history of alcoholism, changes in role status, presence of any sensory problems, patterns of communication with the family members, and practiced any relaxation therapies.

The stress level was assessed through “**Modified Great lakes naturopathic center stress assessment rating scale**”. It consists of 30 questions and the total score was 90. Each response was given a minimum score of ‘zero’ and the maximum score of ‘three’.

## **ACTION**

It refers to any changes that have to be achieved. The nurse educator has planned for demonstrating laughter therapy for senior

citizens to reduce stress. Senior citizens are motivated to attend the laughter therapy session for a period of 3 weeks to reduce stress.

## **INTERACTION**

It refers to the verbal and non verbal behavior between one individual and environment or between two or more individual who involve goal directed perception and communication.

Elderly who met the inclusion criteria were selected by using simple random sampling methods. The duration of the interview ranged from 20 – 30 minutes for each samples.

The data collection was started by collecting the demographic variables of the senior citizen. Assessment of stress was done by using “**Modified Great Lakes Naturopathic centre stress assessment rating scale**”.

Based on the assessment, the level of stress was identified and then stress management strategies were planned in which the laughter therapy was demonstrated by the investigator for senior citizen in group. The therapy consists of 25 steps and for a period of 30 minutes per day. After 3 weeks the effectiveness was assessed with the same tool.

## TRANSACTION

This is the achievement of a goal. In this stage the investigator reassess the level of stress among senior citizens by conducting post test by using same scale “**Modified Great Lakes Naturopathic centre stress assessment rating scale**” after 3 weeks. Then the level of stress was categorized as mild, moderate and severe stress.

## FEEDBACK

The moderate and severe stress level senior citizens are encouraged to practice laughter therapy to reduce stress by providing pamphlets.

## **CHAPTER – II**

### **REVIEW OF LITERATURE**

Review of literature serves a number of important functions in the research process. It helps the researcher to generate ideas or to focus on a research topic. It also can be useful in pointing out the research methodology, measuring tools and even type of statistical analysis that might be productive in pursuing the research problem. Literature review refers to the activities involved in identifying and searching for information on a topic and developing a comprehensive picture of knowledge on that topic.

The review of literature is an extensive systematic selection of potential sources of previous work, facts and findings of the chosen problem. The literature review has contributed good back ground material, helpful methodology and relevant insights to this study.

**The review of Literature related to the study are discussed under the following headings**

**Part- I    Review of literature related to stress among senior citizens.**



**Part- II Review of literature related to effects of laughter therapy.**

**Part- III Review of literature related to effect of laughter therapy on stress among senior citizens.**

**Part- I Review of literature related to stress among senior citizens.**

**Umesh kotare.L;et.al.,(2010)** conducted a comparative study to determine the effect of living arrangement, gender difference on emotional state of old age people. The study reveals that emotional states like anxiety, depression and guilt are more in old people living in institution, living away from their children and family, with economic insecurity and those approaching death and especially old aged female suffered from more stress, depression, guilt and extraversion feelings.

**Nitesh kumar rathod.G;et.al.,(2009)** has conducted a descriptive study to identify life style and problems faced in their life. Results showed that money, health, death of spouse, division of property amongst the old age leading to financial dependence, loneliness. Researcher concluded that people find out certain means to reduce their burden of living.

**Ramesh pai.D;et.al.,(2008)** has conducted a descriptive study to assess the psychological needs of elderly in a rural population. The results showed that economic dependence, sad attitude towards life, loneliness and lack of awareness of the services were some of the needs of elderly and have to strengthen them.

**Tzu tzu wang.M;et.al.,(2008)** has conducted a study to identify the social problems of ageing person. The study reveals that 22% were being respected, 65% were indifferently treated and 47% were being neglected by the family members. Also 49.4% were addicted to one or more addictions, Researcher concludes that various stressor are responsible for social problems of elderly and their attitude towards life.

**Bharath.S;et.al.,(2007)** has conducted a study to identify the perceived stress status of elderly in family. Results shows that psychological needs like respondent in the family, respect by others no fulfillment of personal wishes, poor control over the surroundings, feeling of powerlessness of elderly in family are responsible for stress.

**Ravi varnea.S; et.al.,(2006)** has conducted a study to assess the cause and ways of coping skills with stress among elderly. Researcher suggest that factors like biological, psychological, sociological factors are responsible for occurrence of stress and based upon situation and problems solving capacity and coping level will vary.

## **Part II – Review of literature related to effects of laughter therapy.**

**Johnson.E;et.al., (2011)** shows that laughter therapy is the therapeutic use of humor and laughter to improve emotional well being in order to facilitate improvement in health.

**Johnson garden.M; et.al., (2010)** has suggested that laughter therapy helps to develop personality and leadership qualities and develop a more positive attitude towards life. Minor set backs or irritants in everyday life no longer cause a serious distribution and learn to deal with them much more effectively.

**Clifford.S;et.al.,(2010)** suggested that laughter therapy improves the level of endorphins, it helps to reduce intensity of pain from arthritis, spondylitis, cancer and migraine, patients with

respiratory problems derive benefit from this exercise as it improves lung capacity and oxygen levels in the blood.

**Dr.Luberk.G;et.al.,(2010)** has suggested that laughter is the antidote for stress in the pursuit of happiness. Modern studies on happiness reveals that happy people are more energetic, creative, social, touching, loving, and responsive. Studies reveal that beneficial effect of laughter in reducing stress hormone and improve immune system. Similarly laughter therapy improves interpersonal relationship and self confidence.

**kataria;et.al.,(2010)** has conducted a study that everyday laugh for 15 minutes keeps one fresh throughout the day. The result of the study reveals that nobody can escape through which is contagious shedding of laughter leads to development of confidence and innate qualities as well as communication skills.

**Dr.Kataria; et.al..(2009)** suggested that laughter session is beneficial and there is an improvements in work effectiveness of more than 100% and confirms that a major stress reduction and a remarkable increase in emotional intelligence skills, which are required for career and life success. It is significant that these results would be achieved in just three weeks.

**Johnstone (2009)** focused on measuring changes in stress levels before and after 3 weeks of unconditioned laughter sessions for staff at three separate IT companies. Researcher carefully measured physical, psychological, and emotional indicators of stress. The laughter group shows a significant decrease in stress levels reflected in reduced heart rate and blood pressure, reduced cortisol levels and an 11% decrease in perceived stress level.

**Lee berks.T;et.al.,(2009)** conducted a study and confirms that laughter therapy significantly helps to bring down blood sugar level and had a better control of blood sugar.

**Dr. Patty pits;et.al.,(2009)** has conducted a study on laughter therapy to reduce stress. The study shows that 70% of illness are related to stress, includes blood pressure, heart disease, depression, anxiety and psychosomatic disorders. The studies shows that stressful life situations generate changes, complexities and challenges to which the individual cannot respond adequately illness can result. Laughter therapy is the best method to reveal these one.

**Donald .M; et.al.,(2008)** suggested that humor and laughter are essential tools that can successfully combat stress and laughter is the form of meditation. More than 70% of illness is related

to stress including blood pressure, depression, anxiety, psychosomatic disorders, migraine and peptic ulcer.

**Ignatavicius.B;et.al.,(2008)** reveals that laughter therapy has psychological effects that result in relaxation, stress reduction and distraction. Individuals with a strong sense of humor deals better with stress in those who do not.

**Kruse prazaki.D;et.al.,(2008)** has conducted a descriptive study to explore the humor stimulus in a population of older adults, and concludes that humor can be used by the nurses as an effective tool when caring for older adults by using humor provoking sources.

**William fry.R;et.al.,(2008)** has suggested that laughter therapy is the best exercise for asthma and bronchitis. It improves lung capacity and oxygen levels in the blood. There are many individuals reported that laughter therapy reduces discomfort due to asthma. Stress also can bring on an attack of asthma. By reducing stress, laughter can improve the prognosis.

**Ramakrishnan (2005)** chief of Chennai marina beach laughter club, enlightens that laughter is an affirmation of one's humaneness, a face saving way to express one's anxieties, fear, and

other hidden emotions to others. It breaks the ice, builds the trust and draws us together into a common state of well being.

**Part - III Review of literature related to effect of laughter therapy on stress among senior citizens.**

**Bersani.G;et.al.,(2010)** suggested that main assumption of the therapeutic action of laughter on depression are examined and concludes that stimulation of particular cerebral region involved in depression pathogenesis and the normalization of hypothalamic pituitary adrenocortical system dysfunctions, both mediated by laughter, can counteract efficiently depressive symptoms finally the favorable effects of laughter on social relationship and physical health may have a role in influencing the ability of depresses patients to face the diseases.

**Lynn.D;et.al.,(2010)** has conducted a study regarding laughter therapy session for the staff, family and military fellow reveals that after laughter therapy session all participants experience to minimize negative effects of stress and pressure.

**Mora Ripoll.R'et.al., (2010)** suggest that laughter therapy has some positive, quantifiable effects on certain aspects of health. In this

era of evidence-based medicine, it would be appropriate for laughter to be used as a complementary/alternative medicine in the preventive and treatment of illness, although further well-designed research is warranted.

**Bennett.M.P;et.al.,(2009)** has conducted an experimental study with humorous video and a tourism video. Self – reported stress and arousal (stress arousal check list), mirthful laughter (humor response scale) and immune function (chromium release natural killer cells cytotoxicity assay). Stress decreased for subjects in the humor group compared with those in the distraction group.

**Klatt.k’et.al.,(2009)** has conducted a study among 50 individuals employed in various occupations provided 30 minutes of laughter therapy and after each session asked about to continue in work environment results reveals that great relief from stress after laughter therapy.

**Paul ghee.R;et.al.,(2009)** has conducted workshops on humor therapy as a stress remedy. It reveals that a good belly laugh reduces muscular tension, stress, improves breathing pattern, regulates heart rate and improve communication.



**Hulse.T;et.al.,(2008)** has conducted a study to investigate value of humor and impact on quality of life among the older generation. Results show that when we laugh, face becomes red due to increase blood supply, which nourishes facial skin and makes it glow. By squeezing the tear glands through laughter, it moistens the eyes adding a little sparkle to them. Laugh is the best method that makes us younger.

**Matt.weinstain.F;et.al.,(2007)** says that many studies on laughter therapy are being done across many countries with amazing results. Laughing 100 times a day gives same cardiac output as 10 minutes of aerobic exercise. Researcher conducted a unique study and proved that 10 – 15 minutes of everyday laughter therapy will reduce stress.

**Robert.R.provine;et.al.,(2007)** has done a extensive research on correlating laughter therapy with the individual health and overwhelming, the findings support that laughter is the best medicine to reduce stress and also many studies had proven effectively.

**Web.M.D;et.al.,(2009)** has conducted a study and shows that international use of fun at work can be positive force in team building,

customer services and boosting employee morals and company loyalty. Recent researchers found that stress levels were reduced significantly after an hour of laughter.

**Dr.Khandwala.S.D;et.al.,(2009)** suggested that after attending laughter therapy for over a year the elderly people had positive improvement in their general health both mental and physical, the attitude towards the family was improved, improved relationship with their colleagues in their profession, the self confidence and concentration. Almost all stated that they would like to continue laughter session as well as recommend the same to others.

## **CHAPTER III**

### **METHODOLOGY**

This chapter deals with the methodology adopted for the study and includes the description of research design setting of study population, sample size, sampling technique, criteria for the selection of sample, tools and data collection procedure.

#### **RESEARCH DESIGN**

The investigator had adapted Quasi - experimental one group pre-test, post-test design to evaluate the effectiveness of laughter therapy in reducing stress among senior citizens.

#### **SETTING**

The study was conducted in keezhmaruvathur village, kanchipuram district. The total population of this village consists of 4000 population. Among this population 200 were senior citizens.

## **POPULATION**

The population of the study includes all senior citizens with stress who are residing in keezhmaruvathur village, kanchipuram district.

## **SAMPLE SIZE**

The sample size includes 30 senior citizens, who fulfilled the inclusion criteria.

## **SAMPLING TECHNIQUE**

Simple random sampling was adapted for the selection of senior citizens who is under stress.

## **CRITERIA FOR SAMPLE COLLECTION**

### **Inclusion criteria**

- ❖ The study includes both men and women who were above 60 years.
- ❖ The samples who could understand English or Tamil.

### **Exclusion criteria**

- ❖ The clients who were not willing to participate in the study

- ❖ The clients who had psychiatric illness and cognitive impairment.

## **INSTRUMENT FOR DATA COLLECTION**

The tool used to collect information from the senior citizens is demographic variables and “**Modified Great lakes naturopathic centre stress assessment rating scale**” on senior citizens those, who are having stress.

### **Section I**

#### **Part – A**

Demographic variables such as age, sex, educational status, occupational status, monthly income of the family, marital status, number of children, type of family and source of income.

#### **Part – B**

Selected demographic variables related to stress such as presence of any medical illness, changes in role status, history of smoking and alcoholism, patterns of communication, presence of any sensory problems and practiced any relaxation therapies.

## Section II

**"Modified Great lakes naturopathic center stress assessment rating scale"** was used to assess the level of stress among senior citizens.

## **CHAPTER - IV**

### **DATA ANALYSIS AND INTERPRETATION**

This chapter deals with analysis and interpretation of data collected from 30 senior citizens having stress in keezhmaruvathur. It deals with description of tool, report of pilot study, reliability, validity and informed consent, scoring procedure, scoring interpretation, data collection procedure and statistical method.

#### **DESCRIPTION OF THE TOOL**

The instrument was classified into 2 parts.

#### **PART I**

##### **Section - A**

It consists of demographic variables of senior citizens, in keezhmaruvathur, such as age, sex, religion, educational status, Occupation, marital status, type of family, monthly income, source of income, and number of children. The data had been collected by interviewing the senior citizens and based upon their answers a tick mark was done for the appropriate response of each item.

## **Section – B**

It consists of selected demographic variables to assess the stress level of senior citizens like presence of any medical illness, history of smoking, history of alcoholism, changes in role status, presence of any sensory problems, patterns of communication with the family members, and practiced any relaxation therapies.

## **PART II**

The data was collected through “**Modified Great lakes naturopathic center stress assessment rating scale**”. It consists of 30 questions and the total score was 90. Each response was given a minimum score of ‘zero’ and the maximum score of ‘three’.

## **VALIDITY**

Content validity was obtained from the experts in the field of Psychiatry and Psychiatric Nursing.

## **REPORTS OF THE PILOT STUDY**

Pilot study was conducted to find out the effectiveness of laughter therapy on stress among senior citizens for a period of 7 days, in parukal village to find out the feasibility of the study and to



plan for data analysis. The result of the pilot study was laughter therapy is effective in reducing stress among senior citizens. The pilot study samples had been excluded from the main study.

## **RELIABILITY**

Reliability of an instrument is the degree of consistency that the instruments or procedure demonstrates, whatever it is measuring “**Modified Great Lakes Naturopathic centre stress assessment rating scale**” was adopted for the study and the reliability was 0.74. Hence the tool was reliable.

## **INFORMED CONSENT**

The dissertation committee prior to the main study approved the research proposal. The consent from each senior citizens was obtained before starting the data collection. Assurance was given to senior citizens regarding the confidentiality of the study.

## **DATA COLLECTION PROCEDURE:**

The investigator had obtained permission to conduct the study from the head of the institution and from the president of village. The main study was conducted in keezhmaruvathur village, kanchipuram district.

Elderly who met the inclusion criteria were selected by using simple random sampling methods. The duration of the interview ranged from 20 – 30 minutes for each samples.

The data collection was started by collecting the demographic variables of the senior citizens. Assessment of stress was done by using “**Modified Great Lakes Naturopathic centre stress assessment rating scale**”.

Based on the assessment, the level of stress was identified and then laughter therapy was demonstrated by the investigator for senior citizen in group. The therapy consists of 25 steps and for a period of 30 minutes per day. After 3 weeks the effectiveness was assessed with the same tool.

## **SCORE INTERPRETATION**

Score interpretation was done by

$$\text{score interpretation} = \frac{\text{Obtained score}}{\text{Total score}} \times 100$$

$$\text{Maximum score} = 3$$

$$\text{Minimum score} = 0$$

$$\text{Total score} = 90$$

**TABLE 4.1 SCORE INTERPRETATION**

<b>S.No</b>	<b>DESCRIPTION</b>	<b>PERCENTAGE</b>
1.	Mild stress	< 50 %
2.	Moderate stress	51% to 75 %
3.	Severe stress	>75%

**STATISTICAL METHOD**

Descriptive statistical analysis and inferential statistical analysis method was used to find out the percentage, mean, standard deviation ,Paired ‘t’ test and chi square test.

**Table 4.2 STATISTICAL METHOD**

<b>S.NO</b>	<b>DATA ANALYSIS</b>	<b>METHODS</b>	<b>REMARKS</b>
1.	Descriptive statistics	Frequency, percentage	To describe the demographic variables of the senior citizens having stress.
2.	Inferential statistics	Paired “t” test  Chi - square test	To evaluate the effectiveness of laughter therapy on stress among senior citizens.  To compare & analyze the association between the demographic variables and the effectiveness of laughter therapy on stress among senior citizens.

**DATA ANALYSIS AND INTERPRETATION HAVE BEEN DONE  
UNDER THE FOLLOWING HEADINGS**

**SECTION – A**

Frequency and percentage distribution of the demographic variables of senior citizens having stress.

**SECTION – B**

Comparison between pre test and post test level of stress among senior citizens.

**SECTION – C**

Comparison between mean and standard deviation of pre test and post test level of stress among senior citizens.

**SECTION – D**

Mean and standard deviation of improvement score of level of stress among senior citizens.

**SECTION – E**

Association of the demographic variables with the effectiveness of laughter therapy on stress among senior citizens.

## SECTION - A

**TABLE - 4.3: FREQUENCY AND PERCENTAGE DISTRIBUTION  
OF DEMOGRAPHIC VARIABLES OF SENIOR CITIZENS  
HAVING STRESS.**

**N=30**

<b>S.No</b>	<b>DEMOGRAPHIC VARIABLES</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>1.</b>	<b>Age in years</b>		
	a. 60-65	15	50.00
	b. 66-70	05	16.67
	c. 71-75	05	16.67
	d. 75 and above	05	16.67
<b>2.</b>	<b>Gender</b>		
	a. Male	22	73.33
	b. Female	08	26.67
<b>3.</b>	<b>Religion</b>		
	a. Hindu	20	66.67
	b. Muslim	06	20.00
	c. Christian	04	13.33
<b>4.</b>	<b>Educational status</b>		
	a. Illiterate	17	56.67
	b. Primary education	06	20.00
	c. Secondary education	04	13.33
	d. Collegiate	03	10.00

<b>5.</b>	<b>Marital status</b>		
	a. Married	10	33.33
	b. Unmarried	04	13.33
	c. Widowed/widower	09	30.00
	d. Divorced/separated	07	23.33
<b>6.</b>	<b>Occupational status</b>		
	a. Unemployed	21	70.00
	b. Self employed	0	0
	c. Retired	03	10.00
	d. Private sector	05	16.67
	e. Others	01	03.33
<b>7.</b>	<b>Type of family</b>		
	a. Nuclear family	11	36.67
	b. Joint family	19	63.33
<b>8.</b>	<b>Monthly income of the family</b>		
		17	56.67
	a. < Rs.3,000	08	26.67
	b. Rs.3,001 – Rs.6,000	03	10.00
	c. Rs.6,001 – Rs.9,000	02	06.67
	d. > Rs.9,000		
<b>9.</b>	<b>Source of income</b>		
	a. Pensioners	03	10.00
	b. Property	03	10.00
	c. Savings	04	13.33
	d. Dependent on others	20	66.67

<b>10.</b>	<b>Number of children</b> a. No children b. One c. Two d. More than two	05 03 05 17	16.67 10.00 16.67 56.67
<b>11.</b>	<b>Any medical illness is present</b> a. Nil b. Diabetes mellitus c. Hypertension d. Respiratory problems e. Others  <b>If yes specify the duration of medical illness</b> a. < 1 year b. 1 – 5 years c. 6 – 10 years d. > 10 years	05           02 03 07 13	16.67           06.67 10.00 23.33 43.33
<b>12.</b>	<b>History of smoking</b> a. Yes b. No	16 14	53.33 46.67
<b>13.</b>	<b>History of alcoholism</b> a. Yes b. No	06 24	20.00 80.00

<b>14.</b>	<b>Changes in role status.</b>		
	a. Yes	22	73.33
	b. No	08	26.67
<b>15.</b>	<b>Presence of any sensory problems</b>		
	a. Yes	13	43.33
	b. No	17	46.67
<b>16.</b>	<b>Patterns of communication with the family members.</b>		
	a. Satisfied	09	30.00
	b. Not satisfied.	21	70.00
<b>17.</b>	<b>Have you practiced any relaxation therapies.</b>		
	a. Yes	16	53.33
	b. No	14	46.67
	<b>If yes, what is the relaxation therapy</b>		
	a. Laughter therapy		
	b. Progressive muscle relaxation		
	c. Yoga		
	d. Meditation		
	e. Others		



**Table 4.3** reveals that, out of 30 samples, most of the samples were among the age group of 60 – 65 years are 15 (50%), and least samples were among the age group of 66 - 75 years and above are five (16.7%),

Analyzing gender, most of the samples are males 22 (73.3%).

Regarding religion, it indicates that most of the samples belonged to Hindu 20 (66.67%) and least samples from Christian four (13.33%).

Regarding education, most of them were illiterate 17 (56.67%), and three (10%) had collegiate education.

With reference to marital status, most of them are married 10 (33.33%) and least samples are unmarried four (13.33%).

Regarding occupational status, 21 (70%) were unemployed, one (3.33%) was working in other sector.

Regarding type of family, most of the senior citizens were living in joint family 19 (63.33%).

Analyzing monthly income of the family, most of the senior citizens 17 (56.67%) having the income below

Rs.3000, and two (6.67%) of the senior citizens having the income of above Rs.9000.

Analyzing source of income, results shows that the most of the senior citizens were dependent on others 20 (66.67%) Describing the total number of children in the family, most of them had above two children 17 (56.67%) and least are having three (10%) one child.

Regarding presence of medical illness, two (6.67%) were having diabetes mellitus, and 13 (43.33%) were having other problems.

Regarding history of smoking, most of them were smokers 16 (53.33%).

Regarding history of alcoholism, 24 (80.00%) was not drinking alcohol.

Analyzing changes in role status of the senior citizens, 22 (73.33%) of the senior citizens had changes in the role status.

Regarding history of sensory problems, 17 (56.67%) of the senior citizens were not having sensory problems.

Analyzing the patterns of communication with the family members, 21 (70.00%) had not satisfied with the family members.

With reference in practicing relaxation therapies, 16 (53.33%) of the senior citizens had practiced relaxation therapies.

## SECTION – B

**TABLE - 4.4: COMPARISON BETWEEN PRE TEST AND POST TEST LEVEL OF STRESS AMONG SENIOR CITIZENS.**

**N= 30**

Level of stress	Mild stress		Moderate stress		Severe stress		TOTAL	
	N	%	N	%	N	%	N	%
<b>Pre test</b>	—	—	17	56.7	13	43.3	30	100
<b>Post test</b>	26	86.7	04	13.3	—	—	30	100

**Table 4.4** depicts the effectiveness of laughter therapy among 30 senior citizens with stress. The pre test shows that among 30 samples 17 (56.7%) had moderate stress and 13 (43.3%) had severe stress. The post test reveals that among 30 samples, 26 (86.7%) had mild stress, four (13.3%) had moderate stress.

## SECTION – C

**TABLE – 4.5: COMPARISON BETWEEN MEAN AND STANDARD DEVIATION OF PRE TEST AND POST TEST LEVEL OF STRESS AMONG SENIOR CITIZENS.**

**N=30**

<b>LEVEL OF STRESS</b>	<b>MEAN</b>	<b>STANDARD DEVIATION</b>	<b>95% CONFIDENCE INTERVAL</b>
<b>Pre test score</b>	87.87	7.09	56.43 – 89.31
<b>Post test score</b>	48.67	6.33	47.23 –50.11

**Table 4.5** reveals the mean and standard deviation of effectiveness of laughter therapy on stress among 30 senior citizens. The overall mean for pre test score is 87.87 with the standard deviation of 7.09. The overall mean for post test score is 48.67 with the standard deviation of 6.33. The confidence interval of the pre test score was 56.43 – 89.31. The confidence interval value of the post test score was 47.23 –50.11

## SECTION – D

**TABLE – 4.6: MEAN AND STANDARD DEVIATION OF IMPROVEMENT SCORE OF LEVEL OF STRESS AMONG SENIOR CITIZENS.**

**N=30**

<b>Level of stress</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>‘t’ value</b>
<b>Improvement Score</b>	36.43	10.16	19.65

**Table 4.6** reveals the mean and standard deviation of effectiveness of laughter therapy among 30 senior citizens having stress. The overall mean evaluation score was 36.43 with the standard deviation of 10.16. The ‘t’ value is 19.65. Hence there is a significant difference between the pre test and post test level of stress among the senior citizens. It reveals that there is an effectiveness of laughter therapy on stress among senior citizens.

## SECTION - E

**TABLE - 4.7: ASSOCIATION OF THE DEMOGRAPHIC VARIABLES WITH THE EFFECTIVENESS OF LAUGHTER THERAPY ON STRESS AMONG SENIOR CITIZENS.**

**N=30**

S.No	DEMOGRAPHIC VARIABLES	MILD STRESS		MODERATE STRESS		SEVERE STRESS		χ <sup>2</sup>
		NO	%	NO	%	NO	%	
<b>1.</b>	<b>Age in years</b>							
	a. 60-65	13	43.33	02	06.67	0	0	1.154 NS
	b. 66-70	04	13.33	01	03.33	0	0	
	c. 71-75	05	16.67	0	0	0	0	
	d. 75 and above	04	13.33	01	03.33	0	0	
<b>2.</b>	<b>Gender</b>							
	a. Male	19	63.33	03	10.00	0	0	0.007 NS
	b. Female	07	23.33	01	03.33	0	0	
<b>3.</b>	<b>Religion</b>							
	a. Hindu	19	63.33	01	03.33	0	0	8.798 S
	b. Muslim	03	10.00	03	10.00	0	0	
	c. Christian	04	13.00	0	0	0	0	
<b>4.</b>	<b>Educational status</b>							
	a. Illiterate	15	50.00	02	06.67	0	0	3.19 NS
	b. Primary education	04	13.33	02	06.67	0	0	
	c. Secondary education	04	13.33	0	0	0	0	
	d. Collegiate	03	10.00	0	0	0	0	
<b>5.</b>	<b>Marital status</b>							
	a. Married	08	26.67	02	06.67	0	0	2.694 NS
	b. Unmarried	04	15.33	0	0	0	0	
	c. Widowed/ widower	07	23.33	02	06.67	0	0	
	d. Divorced/separated	07	23.33	0	0	0	0	

6.	<b>Occupational status</b>							
	a. Unemployed	19	63.33	02	06.67	0	0	7.418 NS
	b. Self employed	0	0	0	0	0	0	
	c. Retired	03	10.00	0	0	0	0	
	d. Private sector	04	13.33	01	03.33	0	0	
	e. Others	0	0	01	03.33	0	0	
7.	<b>Type of family</b>							0.271 NS
	a. Nuclear family	10	13.33	01	03.33	0	0	
	b. Joint family	16	53.33	03	10.0	0	0	
8.	<b>Monthly income of the family</b>							1.387 NS
	a. < 3,000	15	50.00	02	06.67	0	0	
	b. 3,001 – 6,000	07	23.33	01	03.33	0	0	
	c. 6,001 – 9,000	02	06.67	01	03.33	0	0	
	d. > 9,000	02	06.67	0	0	0	0	
9.	<b>Source of income</b>							2.163 NS
	a. Pensioners	03	10.00	0	0	0	0	
	b. Property	02	06.67	01	03.33	0	0	
	c. Savings	03	10.00	01	03.33	0	0	
	d. Dependent on others	18	60.00	02	06.67	0	0	
10.	<b>Number of children</b>							1.697 NS
	a. No children	05	16.67	0	0	0	0	
	b. One	03	10.00	0	0	0	0	
	c. Two	04	13.33	01	03.33	0	0	
	d. More than two	14	46.67	03	10.00	0	0	
11.	<b>Any medical illness is present</b>							4.498 NS
	a. Nil	05	16.67	0	0	0	0	
	b. Diabetes mellitus							
	c. Hypertension							
	d. Respiratory problems							
	e. Others							
	<b>If yes specify the duration of medical illness</b>							
	a. < 1 year	01	03.33	01	3.33	0	0	
	b. 1 – 5 years	02	06.67	01	3.33	0	0	
	c. 6 – 10 years	06	20.00	01	3.33	0	0	
	d. > 10 years	12	40.00	01	3.33	0	0	



<b>12.</b>	<b>History of smoking</b> a. Yes b. No	15 11	50.00 36.67	01 03	03.33 10.0	0 0	0 0	1.489 NS
<b>13.</b>	<b>History of alcoholism</b> a. Yes b. No	06 20	20.00 66.67	0 04	0 13.33	0 0	0 0	1.154 NS
<b>14.</b>	<b>Changes in role status.</b> a. Yes b. No	19 07	63.33 23.33	03 01	10.00 03.33	0 0	0 0	0.007 NS
<b>15.</b>	<b>Presence of any sensory problems</b> a. Yes b. No	11 15	06.67 50.00	02 02	06.67 06.67	0 0	0 0	0.084 NS
<b>16.</b>	<b>Patterns of communication with the family members.</b> a. Satisfied b. Not satisfied	08 18	26.67 60.00	01 03	03.33 10.00	0 0	0 0	0.055 NS
<b>17.</b>	<b>Have you practiced any relaxation therapies.</b> a. Yes b. No <b>If yes, what is the relaxation therapy</b> a. Laughter therapy b. Progressive muscle relaxation c. Yoga d. Meditation e. Others	14 12	46.67 40.00	02 02	06.67 06.67	0 0	0 0	0.021 NS

S = Significant

NS = Non significant

**Table 4.7** reveals that there is a significant association between the effectiveness of laughter therapy in reducing stress among senior citizens with religion and all other demographic variables were non - significant. Hence the effectiveness of

laughter therapy was independent of the demographic variables such as age, sex, educational status, occupation, income of the family, marital status, source of income, number of children, presence of any medical illness, history of smoking and alcoholism, presence of any sensory problems.

## CHAPTER - V

### RESULTS AND DISCUSSION

The aim of present study was to evaluate the effectiveness of laughter therapy on stress among senior citizens. A total number of 30 samples has been selected for this study. On the first day, assessment was done by using “**Modified Great lakes naturopathic centre stress assessment rating scale**” and demonstration was given regarding laughter therapy. After three weeks the post test was done by using the same tool. The result of the study has been discussed according to the objectives of the study.

#### DISCUSSION OF THE RESULT WITH OBJECTIVES

**The first objective was to assess the level of stress among senior citizens.**

Table 4.4 depicts the effectiveness of laughter therapy among 30 senior citizens with stress. The pre test shows that among 30 samples 17 (56.7%) had moderate stress and 13 (43.3%) had severe stress. The post test reveals that among 30 senior citizens, 26 (86.7%) had mild stress, four (13.3%) had moderate stress on post test.

**The second objective was to assess the effectiveness of laughter therapy on stress among senior citizens.**

The clients had been treated on the basis of laughter therapy. The stress level of the senior citizens has been observed and assessed. The effectiveness was assessed with “**Modified Great lakes naturopathic centre stress assessment rating scale**”.

The demonstration was provided with modified Imogene King’s Goal Attainment theory. The findings revealed that there would be a significant reduction of stress level.

**The third objective was to find out the association between the effectiveness of laughter therapy on stress among senior citizens with selected demographic variables.**

Table 4.7 reveals that there is a significant association between the effectiveness of laughter therapy in reducing stress among senior citizens with religion and all other demographic variables were non - significant. Hence the effectiveness of laughter therapy was independent of the demographic variables such as age, sex, educational status, occupation, income of the family, marital status,

source of income, number of children, presence of any medical illness, history of smoking and alcoholism, presence of any sensory problems.

## CHAPTER - VI

### SUMMARY AND CONCLUSION

The present study was conducted to evaluate the effectiveness of laughter therapy on stress among senior citizens. One group pre-test post test design was adopted to evaluate the effectiveness of laughter therapy. The simple random sampling technique was adapted to select the samples and sample size was determined as thirty. Pre test reveals that out of 30 samples 17 (56.67%) had moderate stress and 13 (43.33%) had severe stress.

Group sessions had been provided to those senior citizens who met the inclusion criteria. After practicing laughter therapy among 30 senior citizens, 26 (86.67%) had mild stress and four (13.33%) had moderate stress. It shows that laughter therapy was effective in reducing stress among senior citizens.

### FINDINGS OF THE STUDY

The study findings showed the following result.

**Table 4.5** reveals the mean and standard deviation of effectiveness of laughter therapy on stress among 30 senior citizens.

The overall mean of pre test score is 87.87 with the standard deviation of 7.09. The overall mean of post test score is 48.67 with the standard deviation of 6.33.

**Table 4.6** reveals the mean and standard deviation of effectiveness of laughter therapy on stress among 30 senior citizens. The overall mean improvement score was 36.43 with the standard deviation of 10.16. Hence there is a significant difference between the pre test and post test level of stress among the senior citizens.

**Table 4.7** reveals that there is a significant association between the effectiveness of laughter therapy in reducing stress among senior citizens with religion and all other demographic variables were non - significant. Hence the effectiveness of laughter therapy was independent of the demographic variables such as age, sex, educational status, occupation, income of the family, marital status, source of income, number of children, presence of any medical illness, history of smoking and alcoholism, presence of any sensory problems.

## **NURSING IMPLICATIONS**

- Stress may affect the individual both physically and emotionally. Prevention and reduction of the level of stress in the prompt way will help to overcome the various ill effects.
- The community health nurse needs to explore the prevalence of stress using more studies to find out the multifactorial causes of stress.
- The study implies that the community health nurse helps the clients to regain the health status by relieving the stress using laughter therapy. A psychological aspect of care is more important and it implies the need to practice and follow various relaxation methods in community settings.

## **NURSING SERVICE**

- Nurses working in psychiatric unit should have special training in psychiatric nursing and should know how to assess the risk of stress.
- Nurses working in psychiatric unit should have widen knowledge about care of clients with various disorders with stress.
- All the health care providers, such as auxiliary nurses, village health nurses, community health workers should be given in-service



education related to psychiatric nursing care and assessment of risk for the redirection of stress.

- Concepts of psycho-biology and neurobiology should be used while working in the psychiatric unit.
- For stress reduction complementary therapies like yoga, meditation, progressive muscle relaxation therapies, can be used in community setting and in clinical setting.

### **NURSING EDUCATION**

- Interpretation of theory and practice is a vital need and it is important to nursing education.
- A cooperative study can be done on different age group of people with stress.
- Students can be trained to work in psychiatric unit under proper guidance and recommended for short term courses about psychiatric emergency nursing.
- Nursing educators should plan to instruct the students and the students should be provided with adequate opportunity to develop skills in handling the clients with stress among various clinical conditions.

- Various workshops and conferences can be put forth on the concept of psychiatric nursing.

### **NURSING ADMINISTRATION**

- People at the administration position can make necessary policies to implement the concept of psycho-biology in psychiatric nursing.
- The ideal setup of the psychiatric unit should be beneficial for better care.
- In-service education should be organized in all health service level including community regarding assessment and management of stress.
- The nursing administrator should manage the client care and the delivery of specific nursing services within the health care agency.
- The nursing administrators should give attention on the proper selection, placement and effective utilization of the nurse in all areas within the available resources and should plan for budget.
- The nursing leaders should work with collaboration and coordination with other health team members.

### **NURSING RESEARCH**

- Psychiatric nursing today is involved with every issues due to changes in health care delivery system, advancement in the emerge

of psychobiology, and development of new discipline in the medicine, Nursing needs to be developed to study the specific areas of problem, encountered by the senior citizens with stress. This study directs the nursing personnel to broaden their knowledge and skill to elicit problems and to conduct more research to raise their power to implement prompt care activities.

➤ This study will imply the nurse education to conduct and motivate learner to select relevant study with all dissemination like physical, emotional, mental, social and spiritual changes encountered by senior citizens, utilization of findings and deviation of knowledge, which help to detect ongoing assessment care and technology that to be made in health care delivery system. By conducting more research, disseminating knowledge will be given a vision for growing in nursing discipline.

## **RECOMMENDATIONS**

Based on the findings of the study, the investigator has proposed the following recommendations.

➤ The study can be done in large sample.

- The replication of present study can be conducted with more effective and with constant intervention.
- Comparative study may be conducted in urban and rural settings to find out the similarities and difference between knowledge, attitude and practice.
- Comparative study may be conducted in residential home and old age home settings to find out the similarities and difference between knowledge, attitude and practice.
- Qualitative study can be conducted to find out the multifactorial causes for stress.
- True experimental studies can be recommended to find out the multifactorial causes for stress.

### **APPENDIX – III**

#### **TEACHING PLAN ON LAUGHTER THERAPY**

<b>TOPIC</b>	<b>:</b>	<b>LAUGHTER THERAPY</b>
<b>GROUP</b>	<b>:</b>	<b>SENIOR CITIZENS WITH STRESS</b>
<b>PLACE</b>	<b>:</b>	<b>KEEZHMARUVATHUR VILLAGE, KANCHIPURAM DISTRICT</b>
<b>TIME DURATION</b>	<b>:</b>	<b>30 MINUTES</b>
<b>METHOD OF TEACHING</b>	<b>:</b>	<b>LECTURE CUM DISCUSSION</b>
<b>STUDENT TEACHER</b>	<b>:</b>	<b>T.VIJAYA SARASWATHY</b>

## **CENTRAL OBJECTIVES :**

At the end of the session the individual can able to understand the laughter therapy techniques and its benefits in reducing stress and develop desirable attitude and skills in practicing in day today life.

## **CONTRIBUTORY OBJECTIVES:**

The individual can able to

- ❖ define laughter therapy
- ❖ describe the psychology of laughter therapy
- ❖ explain the theories of laughter therapy
- ❖ list down the benefits of laughter therapy
- ❖ enumerate the humor provoking sources of laughter therapy
- ❖ demonstrate the techniques of laughter therapy

S No	CONTRIBUTORY OBJECTIVES	TIME	CONTENT	TEACHER'S ACTIVITY	LEARNER'S ACTIVITY
1.	define laughter therapy	2 mts	<p style="text-align: center;"><b>LAUGHTER THERAPY</b></p> <p><b>DEFINITION OF LAUGHTER THERAPY:</b></p> <p>Laughter therapy is defined as a new kind of therapy that involves giggling, chuckling and a great sense of humor. Humor therapy refers to a form of therapy which encourages the use of natural physiological process of laughter therapy without painful emotion of anger, fear and boredom.</p> <p style="text-align: center;"><b>Madan kataria (2009)</b> says that</p> <p><b>L</b>     -     Laughter, love, listen, learn, leadership.</p> <p><b>A</b>     -     Attitude positive in life</p>	explaining	Listening

			<p><b>U</b> - Understand the people point of view.</p> <p><b>G</b> - Gives positive energy to people.</p> <p><b>H</b> - Happiness</p> <p><b>HISTORY OF LAUGHTER THERAPY:</b></p> <p>In the biblical days, humor was considered as a tool of therapeutic medicine. “A merry heart does well like medicine, but a broken spirit drieth bones”. The latin origin of the word “humor” means fluid or moisture. According to medieval physiology, the body hosted for primary humors,each associated with a mood. Choler – anger, bile – melancholy, blood – confidence phlegm – apathy. Some culture use laughter to lift spirits and promote health, employing individuals like</p>		
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2.	describe about the psychology of laughter therapy	10 mts	<p>European court jesters or native American shamans, some cultures associated laughter with the work of devil. In puritan times, humor was considered a moral sin, regardless of the occasion and even smiling was prohibited.</p> <p><b>PSYCHOLOGY OF LAUGHTER THERAPY:</b></p> <p>“A smile is the shortest distance between two people”</p> <p>- <b>VICTOR BORGE.</b></p> <p>A study of humor has revealed a complex psychological phenomenon with rare exceptions, everyone has and demonstrates a sense of humor. Infact, sense of humor has been categorized into types, associated with personality,</p>	Explaining	listening
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3.	explain about the theories of laughter therapy	10 mts	<p>including 'good sport' (laughter at one's own expense), conventional (eye to eye humor, where two or more people laugh at same thing), creative (imaginative) and life of the party (an extrovert who makes people laugh moreover, humor has many styles, including slapstick, black (gallows) humor, parody, satire and lowest form of humor, sarcasm (tear flesh).</p> <p><b>THEORIES OF LAUGHTER THERAPY:</b></p> <p>Four components of wellness mind, body, spirit and emotions are theories of humor, suggesting that humor is an important factor in the wellness paradigm</p> <ul style="list-style-type: none"> <li>❖ Superiority theory</li> <li>❖ Incongruity theory</li> </ul>	explaining	Listening
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			<ul style="list-style-type: none"> <li>❖ Divinity theory</li> <li>❖ Relief theory</li> </ul> <p><b>Superiority theory:</b></p> <p>Superiority theories are the oldest theories of humor. The superiority theory of humor traces that a person laughs about misfortunes of others (so called schadenfreude), because these misfortunes assert the person's superiority on the background of shortcomings of others. For Aristotle, we laugh at inferior or ugly individuals, because we feel a joy at being superior to them. Socrates was reported by Plato as saying that the ridiculous was characterized by a display of self-ignorance</p>		
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			<p><b>Incongruity Theory:</b></p> <p>The incongruity theory states that humor is perceived at the moment of realization of incongruity between a concept involved in a certain situation and the real objects thought to be in some relation to the concept. Humor arises because the mind does not expect the outcome. Two unrelated thoughts are combined for comic effect.</p> <p><b>Divinity theory:</b></p> <p>Humor that makes order out of chaos by dissolving threats. Humor as a gift from God—his way of telling us we are not perfect</p>		
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4.	list down the benefits of laughter therapy.	10 mts	<p><b>Relief theory:</b></p> <p>Laughter that releases energy built up from repressed thoughts. Humor that is often taboo—not always socially acceptable</p> <p><b>BENEFITS OF LAUGHTER THERAPY:</b></p> <p><u>Physiological:</u></p> <ul style="list-style-type: none"> <li>❖ Increases number and activity level of natural killer cells that attack viral infected cells and some types of cancer and tumor cells</li> <li>❖ Increases activated T cells (lymphocytes).</li> <li>❖ Increases antibody Ig A which fights upper respiratory tract infections and insults.</li> </ul>	Explaining	Listening
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			<ul style="list-style-type: none"> <li>❖ Increases gamma interferon, which cells various components of immune system to turn on.</li> <li>❖ Increases Ig B, produced in greatest quantity in body, which help antibodies to pierce dysfunctional or infected cells.</li> <li>❖ Humor allows a person to forget about pain.</li> <li>❖ Humor therapy results in muscle relaxation.</li> <li>❖ Provides good cardiac relaxation conditioning</li> <li>❖ Maintains blood pressure.</li> </ul> <p><u>Psychological :</u></p> <ul style="list-style-type: none"> <li>❖ It is a power of positive healing and major weapon against stress.</li> </ul>		
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5.	enumerate the humor provoking sources.	5 mts	<ul style="list-style-type: none"> <li>❖ It is one way to arrive at relaxation response</li> <li>❖ It helps to reduce stress by release of endorphins.</li> <li>❖ Believed to act as a coping mechanism to reduce stress and improve self esteem</li> <li>❖ It acts as a moderator of negative life events on depression.</li> </ul> <p><b>HUMOR PROVOKING SOURCES:</b></p> <ul style="list-style-type: none"> <li>❖ Comic books</li> <li>❖ Comic videos</li> <li>❖ Jokes</li> <li>❖ Buffoon dramas</li> <li>❖ Comic relief show</li> </ul>	Explaining	Listening
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6.	demonstrate the techniques of laughter therapy	25 mts	<p style="text-align: center;">❖ Comic plays</p> <p><b>TYPICAL LAUGHTER THERAPY SESSION:</b></p> <p><b><u>Duration:</u></b></p> <p>30 minutes. Each bout laughter should last for 30 -40 seconds followed by clapping and “ho ho ha ha ha” exercise.</p> <p>Take 2 deep breaths after each laughter exercise.</p> <p><b><u>Step 1:</u></b> clapping in a rhythm 1-2, 1-2-3 along with chanting of “ho ho ha ha ha”</p> <p><b><u>Step 2:</u></b> OM at sun side.</p> <p><b><u>Step 3 :</u></b> <i>Greeting laughter.</i> joining both hands and greeting in Indian style (namaste) or western style (shaking hands) with</p>	Demonstrating the technique	Re - demonstration
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			<p>atleast 4 – 5 people.shoulder, neck and stretching exercise (5 times)</p> <p><b><u>Step 4:</u></b> Deep breathing with inhalation through nose and prolonged exhalation (3times)</p> <p><b><u>Step 5:</u></b> Neck exercise.</p> <p><b><u>Step 6:</u></b> <i>Milk shake laughter:</i> Hold and mix 2 imaginary glasses of milk or coffee and at the instruction of the leader pour the milk from one glass by chanting aeee., after that everyone laugh making a gesture as if they are drinking milk(4 times).</p> <p><b><u>Step 7 :</u></b> <i>1 meter laughter :</i> Move one hand over the stretched arm of the other side and extend the shoulder (like stretching to shoot with a bow and arrow). The hand is moved in three jerks</p>		
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			<p>by chanting (ae....ae.....aeeee) and throwing their hands a little backwards by stretching their heads a little backwards and laughing from belly (4times) .</p> <p><b><u>Step 8:</u></b> <i>Cell phone laughter:</i> Hold an imaginary mobile phone and try to laugh, making different gestures and moving around in the group to meet different people.</p> <p><b><u>Step 9:</u></b> Jogging laughter:</p> <p><b><u>Step 10:</u></b> Shoulder exercise.</p> <p><b><u>Step 11:</u></b> <i>Headache laughter:</i> keep both the palms of the hands in the forehead and bend forward and laugh.</p> <p><b><u>Step 12:</u></b> <i>Crying laughter/ worry laughter:</i> Ask the client to think about their worries and sit like a child and laugh as if they are</p>		
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			<p>crying.</p> <p><b><u>Step 13:</u></b> <i>Gradient laughter:</i> starts with bringing a smile on the face, slowly gently giggles are added and intensity of laughter is increases further then members gradually burst into hearty laughter and slowly and gradually bring the laughter down and stop.</p> <p><b><u>Step 14:</u></b> <i>Lion laughter:</i> extend the tongue fully with eyes open wide and hands stretched out like the claws of lion and laugh from tummy.</p> <p><b><u>Step 15:</u></b> <i>Silent laughter:</i> open your mouth wide and laugh without making any sound and look into each other eyes and make some funny gestures.</p>		
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			<p><b><u>Step 16:</u></b> <i>Humming laughter:</i> laugh with closed mouth and a humming sound while humming keep on moving in the group and shaking hands with different people.</p> <p><b><u>Step 17:</u></b> <i>Argument laughter:</i> Laugh by pointing fingers at different group members as if you are arguing.</p> <p><b><u>Step 18:</u></b> <i>Boxing laughter:</i> Laugh by doing boxing.</p> <p><i>Heart to heart laughter (intimacy laughter):</i> Come closer and hold each other's hands and laugh. One can shake hands owe hug each other, whatever feels comfort.</p> <p><b><u>Step 19:</u></b> <i>Swinging laughter:</i> stand in a circle and move towards the centre by chanting Aee, oee., ueee.</p> <p><b><u>Step 20:</u></b> Stretching exercise.</p>		
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			<p><b><u>Step 21:</u></b> <i>Forgiveness/apology laughter:</i> Immediately after Argument laughter catch both ear lobes and laugh while shaking or head or raise both your palms and laugh as if saying sorry.</p> <p><b><u>Step 22:</u></b> <i>Appreciation laughter:</i> Join or pointing finger with the thumb to make a small circle while making gestures as if you are appreciating your group members and laughing simultaneously.</p> <p><b><u>Step 23:</u></b> <i>Hearty laughter:</i> laughter by raising both arms in sky with the head tilted a little backwards, feel as if laughter is coming from your heart.</p> <p><b><u>Step 24:</u></b><b><u>CLOSING TECHNIQUE:</u></b></p> <p>Shouting three slogans.</p>		
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			<p>“We are the happiest person in the world” Y.....E.....S</p> <p>“We are the healthiest person in the world” Y.....E.....S</p> <p>“We are laughter club members” Y.....E.....S</p> <p><b><u>Step 25:</u></b> Thought of the day.</p>		
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# **BIBLIOGRAPHY**

## **BOOKS**

1. Ahuja N. Textbook of Postgraduate Psychiatry. New Delhi: 5<sup>th</sup> edition. Jaypee brothers medical publishers; 2004.
2. Alligard MR. Nursing Theorists and their work. Philadelphia: 5<sup>th</sup> edition, mosby company; 2002.
3. Anantharaman RN. Aging in India. Bombay: Tata Institute of social science; 1992.
4. Bhatia DC. Community geriatrics. New Delhi: National Institute of health care; 1993.
5. Cornelius katona Gill Livingstone. Stress in elderly people. U.K: Eayfosa publishers; 1997.
6. Darks B. Clinical Medicine.13<sup>th</sup> edition, Churchill living stone publication; 2000.
7. Decalmer peter. The mistreatment of elderly people. London: SAGE publication; 1993.
8. Denise F. Nursing Research Principles and Methods. 6<sup>th</sup> edition. Philadelphia: Lippincott Company; 2000.
9. Edward SRW. Text book of medicine. 19<sup>th</sup> edition. ELBS Publication; 2002.

10. Ewald Busse N. Handle of Geriatric Psychiatry. New York: van Nostrand Reinhold Company; 2004.
11. Fortinasn S. Psychiatric Mental Health Nursing. 1<sup>st</sup> edition. California: Mosby Publication; 2000.
12. Fox David F. Fundamentals of Research in Nursing. 4<sup>th</sup> edition. New York: Appleton centre crafts; 1993.
13. Haber J. Psychiatric Nursing. 4<sup>th</sup>edition. Mosby Publications; 2000.
14. Harkness GD. Total Patient care. 10<sup>th</sup> edition, California: Mosby Publication; 1999.
15. Hogstel C. Gero Psychiatric Nursing. Philadelphia: Mosby publications; 2002.
16. Joanne Green. Neuropsychological Evaluation of the older adult London: Academic press; 2000.
17. John Copeland RM. Principles and Practices of Geriatric psychiatric. Singapore: Johnwileg and sons; 2004.
18. John watts P. Psychological Assessment of Elderly. Newyork: Churchill livingstone; 2006.



19. Julia B. Nursing Theories the base for Professional Nursing Practice. 3<sup>rd</sup> edition. California: Prentice hall private limited; 2004.
20. Kaplan and Sadock's. Synopsis of Psychiatry, Behavioural Sciences / clinical Psychiatry. 10<sup>th</sup> edition. Lipponcott Williams and Wilkins; 2007.
21. Lessy Jorvic F. Aging in India. Calcutta: Minerva publication; 2007.
22. Laura A. Principles and Practice of Nursing Research. Mosby Publishers; 2001.
23. Louise. Basic concepts of Psychiatric-Mental Health Nursing. 7<sup>th</sup> edition. New Delhi: Wilkins Williams Publishers; 2008.
24. Mahajan BK. Methods of Biostatistics. New Delhi: Jaypee Brothers Publishers; 1998.
25. Marutha RM and Turney D. Nursing theory utilization and application. 1<sup>st</sup> edition. Mosby publication; 1997.
26. Mary Ann Boyd. Psychiatric Nursing Contemporary Practice. 3<sup>rd</sup> edition. Philadelphia: Lippincott Publications; 2005.
27. Mary.C Townsend. Psychiatric Mental Health Nursing. 5<sup>th</sup> edition. New Delhi: Jaypee Publications; 2006.

28. Morren Frisch. Principles and Practice of Psychiatric Nursing. 2<sup>nd</sup> edition. New Delhi. Delmar Publishers; 2006.
29. Potter, A.P, and Perry. A.G. Fundamentals of Nursing. 4<sup>th</sup> edition. Mosby, st.Louis Publication; 2006.
30. Polit, D.F. and Hungler, B.D. Nursing Research Principles and Methods. 6<sup>th</sup> edition. Philadelphia: Lippincott Publications; 2006.
31. Porland. Medical Dictionary. 27<sup>th</sup> edition. Mexico: W.B. Saunders Company; 2009.
32. Sally Wechneier. Oxford Advanced Learner's Dictionary. 6<sup>th</sup> edition, New york: Oxford university press; 2006.
33. Susan BO. Sullivan. Physical rehabilitation. 5<sup>th</sup> edition. Jaypee brothers; 2006.
34. Sheila F. Psychiatric Nursing. 3<sup>rd</sup> edition. Philadelphia: Lippincott Publication; 2005.
35. Sreevani. Psychiatric Mental Health Nurse. New Delhi: Jaypee brothers publications; 2009.
36. Stuart and Sundeen. Principles and Practice of Psychiatric Nursing. 9<sup>th</sup> edition. Philadelphia: Mosby Publications; 2009.

## **JOURNAL REFERENCE**

1. Abdulla.K.J.,(2002), "Better Client Care", the Journal of Nursing Research vol.30.
2. Anisman.H., (2009), "Escading effect of stressors and inflammatory system activation", Journal of Psychiatric Neurosis.
3. Bake.B.,(2004), "Effects of Breathing Exercise on Breathing pattern in obese and non obese subjects", Journal of clinical.
4. Fieve RR .,(1999), " Mood Swings" American Journal Of Nursing.
5. Folkmans .,(2001), " Ways Of Coping " American Journal of Nursing.
6. Fernier.M.,(2002), "American Journal of Public Health",Teb;92t.
7. Home.D.,carr M.,(2009), "The Role of Early intervention and self management", British Journal of community Nursing.vol6.
8. Jamison KR .,(1997), "An Unquiet Mind Vintage" British Journal of Nursing.vol.9.

9. Jullia.E.J.et.al.,(2000), "Efficiency of Breathing exercise and mobilization", British Journal of surgery vol.84,No.11.
10. Kessler RC .,(1999), "Prevalence Of Stress In old age" American Journal of Nursing. Vol.9.
11. Long A.F., (2002), "Role of Nurse with in the multi professional Rehabilitation team", Journal of Psychiatric Nursing. Vol.14.
12. Orme- hohnson and Walton, (1998), "All approaches of preventing or reversing effects of stress are not the Same." American Journal of health promotion vol.12 NO:5
13. Sauseng and klimesch, (2008), "what does phase information of oscillatory brain activity tell us about cognitive processes?" Journal of neuroscience and bio behavioral reviews.vol.32 NO:5
14. Palmerd.,(2007), "Improving Patient care", British Journal of Nursing vol.27.
15. Marie, E (2008), "Effect of laughter therapy on GeroPsychiatry" Journal of Gerocare, vol – 18, pg no – 69 – 73.

16. Known.,(2006), "Effect of laughter therapy on pain, Depression and Discomfort", Critical care Nursing.vol.20.
17. Cole,M.G(2007), "Learning to care for senior citizen", American Journal of psychiatry. Vol – 60.
18. Helmchen.H,et.al.,(2007), "Gero psychiatric care", Journal of psychiatric Nursing, vol – 23(5).
19. Histian Mottkal et.al.,(2007), "Care of elderly population",American Journal of mental disorder, vol.87 (1).
20. Klermann et.al.,(2007), "Psychiatry of old age", Journal of psychosocial Nursing, vol – 46 ,NO - 7
21. Onder & Brenda (2007), "Effects of Gero care",Journal of mental disabilities, vol – 15 ,NO – 5
22. Elleng et.al., (2006), "Effect of Gero psychiatric care" Journal of mental deficit, vol – 18 ,NO - 5
23. Holmes et.al.,(2004), "prevalence of stress", Journal of geriatric Psychiatry, vol – 14 ,NO – 4

24. Kraaji.V.et.al.,(2006), "cognitive coping and stress symptoms in the elderly", American Journal of geriatric Psychiatry, vol - 9 ,NO - 13.
25. Saily wechmeier.,(2000), " Oxford Advance Learner's Dictionary", 6<sup>th</sup> edition, NewYork Oxford University Press.
26. Somers JM, GOLDNER.,(2006), "Prevalence And Incidence Of Anxiety Disorders" Nursing times.
27. Shavianidze.G.O.,(1996), "The Treatment and Rehabilitation characteristics of patients with multiple disorder", Nursing Times. Vol.6.
28. Travis.F.T.et,al.,(2004), "psychological and physiological characteristic of a proposed object referral " British Journal of Nursing volume.18 NO: 4
29. Travis.F.S.pearson,C.(2000), "Pure Consciousness Distinct Phenomenological And Physiological Correlates Of Consciousness Itself." Journal of neuroscience. Vol.100 No:38

30. Tondon.,(2001), "Today's health care",A Journal Of Health And Medicine.vol.21.

31. Taris., (2001), "today's health care", a Journal of health and medicine "vol.25 No:8

32. Zigmond AS, snaith .,(1983), "The Anxiety And Depression"  
Journal of psychiatric Nursing.